

Application	: 10/599,347	Applicant(s)	: Kuiper et al.
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T.C./Art Unit	: 2627	Examiner	: Ortiz Criado, Jorge L.
Atty. Docket	: NL 041186 [MS-378]-Appeal Brief		
Title:	COMPACT SWITCHABLE OPTICAL ELEMENT		

RESPONSE TO NON-COMPLIANT APPEAL BRIEF

Appellant herewith respectfully presents a CLAIMS APPENDIX, EVIDENCE APPENDIX AND NON-RELATED PROCEDURES APPENDIX responsive to the Notice of Non-Compliant Appeal Brief mailed on January 25, 2010 as follows:

Please delete the previously submitted CLAIMS APPENDIX section, and substitute the following CLAIMS APPENDIX section included herein. Please add the previously omitted EVIDENCE APPENDIX AND NON-RELATED PROCEDURES APPENDIX included herein.

CLAIMS APPENDIX

CLAIMS ON APPEAL

1. A switchable optical unit capable of controlling an external beam of radiation (b) passing through an optically active portion of the unit,

wherein the optically active portion comprises a region through which the beam of radiation passes through the switchable optical unit, which unit comprises a chamber and an electrically conductive liquid contained in the chamber,

the chamber being provided with an electrode configuration wherein application of a voltage (V), from a voltage control system to electrodes causes movement of the said liquid, characterized in that the electrode configuration comprises:

at least one first electrode fixed to the inner walls of the chamber at the position of the optically active portion,

second electrode means fixed to the inner walls of the chamber at positions outside the optically active portion and a third electrode in contact with the conductive liquid and continuously connected to a first output of a voltage source, a second output of which is connected in a first mode to said at least one first electrode and in a second mode to the second electrode means, and

wherein in a first mode, the electrically conductive liquid fills the chamber inside the optically active portion, and

wherein in a second mode, the electrically conductive liquid fills the chamber outside of the optically active portion.

2. A switchable optical unit as claimed in claim 1, wherein the second electrode means includes one annular electrode having a U-shaped cross-section.
3. A switchable optical unit as claimed in claim 1, wherein the second electrode means includes one flat annular electrode.
4. A switchable optical unit as claimed in claim 1, wherein the interior wall of the chamber facing the liquid is coated with an insulating hydrophobic layer.
5. A switchable optical unit as claimed in claim 1, wherein the chamber comprises a medium contained in the chamber which has an index of refraction different from that of the conductive liquid.
6. A switchable optical unit as claimed in claim 5, wherein the medium is a liquid.
7. A switchable optical unit as claimed in claim 5, wherein the medium is a gas.
8. A switchable optical unit as claimed in claim 1, wherein a liquid free portion of the chamber is at vacuum.
9. A switchable optical unit as claimed in claim 1, comprising at least one lens element wherein at least one chamber wall situated in the optically active portion includes a refractive lens surface.

10. A switchable optical unit as claimed in claim 9, wherein each of two opposite chamber walls situated in the optically active portion includes a refractive lens surface.

11. A switchable optical unit as claimed in claim 9, wherein at least one of the refractive lens surfaces is an aspherical surface.

12. A switchable optical unit as claimed in claim 1, wherein at least one chamber wall situated in the optical active portion is provided with a phase structure.

13. A switchable optical unit as claimed in claim 12, wherein the phase structure is a non-periodical structure, which renders the unit to a wavefront- modifying unit

14. A switchable optical unit as claimed in claim 12, wherein the phase structure is a periodical structure.

15. A switchable optical unit as claimed in claim 1, wherein the voltage control system is arranged to supply a voltage to the at least one first electrode individually.

16. A switchable optical unit as claimed in claim 1, wherein the index of refraction of the electrically conductive liquid is equal to that of the optically relevant material of the chamber wall.

17. An optical camera including a controllable lens system, wherein the lens system comprises a switchable optical unit as claimed in claim 1.
18. A hand-held apparatus including an optical camera as claimed in claim 17.
19. A switchable optical unit as claimed in claim 1, wherein at least one chamber wall situated in the optically active portion includes a planar surface.
20. A switchable optical unit as claimed in claim 19, wherein each of two opposite chamber walls situated in the optically active portion includes a planar surface.

EVIDENCE APPENDIX

No evidence has been submitted.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

REMARKS

This Corrected Brief is responsive to the Notice of Non-Compliant Appeal Brief mailed on January 25, 2010. Included herewith is a corrected CLAIMS APPENDIX for replacing the CLAIMS APPENDIX included in the Appeal Brief previously submitted on January 4, 2010. Also included herewith is an EVIDENCE APPENDIX AND NON-RELATED PROCEDURES APPENDIX previously omitted in the Appeal Brief previously submitted on January 4, 2010.

In view of the above, it is respectfully submitted that the Brief on Appeal as corrected herein is compliant and consideration on the merits is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael A. Scaturro", is written over a horizontal line.

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